

apparatus storing data defining a 3D game environment, wherein the player apparatus and the game processing apparatus are connected and information is transferred to enable each player to view the status of the 3D game environment and to control one or more objects therein, and wherein the system further comprises broadcast means for broadcasting data defining at least one view of the 3D game environment for receipt by a plurality of observers.

D1 2. (Amended) A system according to claim 1, wherein there is a game processing apparatus having the form of a server to which each player apparatus is connected, and wherein object control signals are sent from the player apparatus to the game processing apparatus and information defining the status of the game environment is sent from the game processing apparatus to the player apparatus.

D2 3. (Twice Amended) A system according to claim 1, wherein each player apparatus includes a game processing apparatus, and wherein each player apparatus sends information to the other player apparatus defining changes made to the game environment by the player at the apparatus which sends the information.

7/ 4. (Twice Amended) A method of operating a computer graphics system to effect a computer game, which graphics system comprises a plurality of player apparatus for the input of user instructions and at least one game processing apparatus storing data defining a 3D game environment, the method comprising the steps of:

transferring information between the player apparatus and the game processing apparatus to enable each player to view the status of the 3D game environment and to control one or more objects therein; and

broadcasting data defining at least one view of the 3D game environment for receipt by a plurality of observers to enable the observers to view the game.

⁸/₇ (Four Times Amended) A method according to claim ⁷/₄, performed in a graphics system including a game processing apparatus having the form of a server, the method including sending object control signals from the player apparatus to the game processing apparatus and sending information defining the status of the game environment from the game processing apparatus to the player apparatus.

6. (Not Further Amended) A method according to claim 4, performed in a computer graphics system in which each player apparatus includes a game processing apparatus, the method including exchanging information between the player apparatus defining changes made to the game environment in response to actions of a player at a particular player apparatus.

7. (Not Further Amended) A method according to claim 4, wherein the broadcasting step includes broadcasting on a television channel.

8. (Not Further Amended) A method according to claim 4, wherein the broadcasting step includes broadcasting on a channel defined at least in part by a communication network.

9. (Not Further Amended) A method according to claim 8, wherein the broadcasting step includes broadcasting on a channel defined at least in part by the Internet.

10. (Not Further Amended) A method according to claim 4, wherein the broadcasting step includes broadcasting in substantially real time as the computer game is played.

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11. (Twice Amended) A computer graphics apparatus, comprising:
storage means for storing data defining a 3D game environment;
game processing means for amending stored data in dependence upon player control of objects in the game environment;
means for generating broadcast data defining at least one view of the game environment; and
broadcasting means operable to broadcast the broadcast data.

12. (Not Further Amended) Apparatus according to claim 11, wherein the game processing means is operable to generate and output data defining change to the game environment for receipt by each player.

13. (Not Further Amended) Apparatus according to claim 11, wherein the game processing means is operable to generate and output data defining a plurality of views of the game environment, the plurality of views comprising a respective view of the game environment for each player.

14. (Not Further Amended) Apparatus according to claim 11, wherein the means for generating broadcast data is operable to generate broadcast data defining a plurality of views of the game environment for broadcast.

16. (Not Further Amended) Apparatus according to claim 11, wherein the broadcasting means includes data compression means operable to convert the broadcast data into a compressed format.

17. (Not Amended) Apparatus according to claim 16, wherein the data compression means is operable to convert data into an MPEG format.

DB ²⁴~~18~~. (Twice Amended) A method of operating a computer graphics apparatus in which is stored data defining a 3D game environment, comprising the steps of:
updating the stored data in response to received signals defining player control of objects in the game;
generating broadcast data defining at least one view of the game environment; and
broadcasting the broadcast data for receipt by a plurality of game observer apparatus.

19. (Not Further Amended) A method according to claim 18, wherein data defining change to the game environment is generated and output to each respective player.

20. (Not Further Amended) A method according to claim 19, wherein data defining a respective view of the game environment is generated and output to each respective player.

~~20~~²². (Twice Amended) A storage medium storing instructions for causing a programmable processing apparatus to become operable to:

update data defining a 3D game environment in accordance with signals defining control of objects in the game by a plurality of players;

generate broadcast data defining at least one view of the game environment; and

broadcast the broadcast data for receipt by a plurality of game observer apparatus.

~~23~~²⁹. (Twice Amended) A signal carrying instructions for causing a programmable processing apparatus to become operable to:

update data defining a 3D game environment in accordance with signals defining control of objects in the game by a plurality of players;

generate broadcast data defining at least one view of the game environment; and

broadcast the broadcast data for receipt by a plurality of game observer apparatus.

24. (Not Further Amended) A method of generating a broadcast signal, comprising the steps of:

receiving data defining a sequence of images of a 3D computer game environment in which objects are controlled by a plurality of players; and

broadcasting a signal conveying images of the game for receipt by a plurality of game observer apparatus.

26. (Not Further Amended) A method of making a recording of video data, comprising the steps of:

receiving data defining a sequence of images of a 3D computer game environment in which objects are controlled by a plurality of players; and

recording, either directly or indirectly, data defining images of the game on a storage device for distribution to a plurality of game observers.

28. (Not Amended) A system according to claim 1, wherein said broadcasting means is operable to broadcast data defining a view of the 3D game environment different from the view or views thereof available to each player.

29. (Not Amended) A method according to claim 4, wherein the broadcast data defines a view of the 3D game environment different from the view or views thereof available to each player.

30. (Not Amended) In a computer game processing system comprising at least one three-dimensional computer game processing apparatus, a plurality of player apparatus in communication with the at least one computer game processing apparatus, and a plurality of observer apparatus, a method of performing processing to enable the players to play the computer game and to enable the observers to observe the game as it is played, the method comprising the steps of:

transmitting data between the at least one game processing apparatus and the plurality of player apparatus, and between the plurality of player apparatus and the at least one game processing apparatus, to enable the players to play the game and to view the game as it is played;

generating image data defining images of the game as it evolves during play and broadcasting the image data for receipt by the plurality of observer apparatus, thereby enabling the observer apparatus to receive the image data as a one-way, non-interactive conveyance of data; and

receiving the broadcast image data at the plurality of observer apparatus and displaying the image data to the observers.

31. (Not Amended) A method according to claim 30, further comprising increasing the number of observer apparatus which receive the broadcast image data without changing the processing burden to generate the broadcast data.

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32. (Amended) A computer game processing system operable to process data defining a three-dimensional computer game in accordance with instructions from a

plurality of game players and to generate data to enable a plurality of non-playing observers to observe the playing of the game, the system comprising:

at least one game processing apparatus storing data defining a three-dimensional computer graphics computer game;

a plurality of player apparatus, each player apparatus being operable to receive inputs from a respective player defining game control instructions;

at least one data communication link connecting the game processing apparatus and the plurality of player apparatus to allow the transfer of data therebetween,

wherein

the game processing apparatus and the plurality of player apparatus are operable to exchange data via the at least one communication link to enable the players to play the game; and

the system further comprises:

a broadcast data generator operable to generate image data defining images to enable a plurality of observers to observe the playing of the game by the players and to broadcast the image data as a one-way, non-interactive conveyance of data; and

a plurality of observer apparatus, each observer apparatus being arranged to receive and display the image data broadcast by the broadcast data generator.

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(Amended) A method performed in a computer graphics processing apparatus of processing data defining a three-dimensional computer graphics game, the method comprising the steps of:

processing stored game data in accordance with instructions received from a plurality of game players to control objects in the game; and

processing the stored game data to generate a sequence of images of the progressing game from at least one view, and broadcasting the image data as a one-way, non-interactive conveyance of data for receipt by a variable number of observer apparatus.

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(Amended) A computer graphics processing apparatus, comprising:
a data store for storing game data defining a three-dimensional

computer graphics game;

a game engine operable to process the stored game data in dependence upon received signals defining control of objects in the game by a plurality of players;

an image data generator operable to process the stored game data to generate at least one sequence of images conveying the progress of the game as it is played by the players; and

a data broadcaster operable to broadcast the image data as a one-way, non-interactive conveyance of the data for receipt by a variable number of observer apparatus.

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(Amended) A computer instruction carrier medium, carrying instructions for programming a programmable processing apparatus to become operable to:

process stored game data in accordance with instructions received from a plurality of game players to control objects in the game; and

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process the stored game data to generate a sequence of images of the progressing game from at least one view, and to broadcast the image data as a one-way, non-interactive conveyance of data for receipt by a variable number of observer apparatus.

[Please add new Claims 36-47 as follows:]

~~36.~~ (New) A system according to claim 1, wherein

each player apparatus includes a game processing apparatus storing data defining the 3D game environment,

including a game processing apparatus having the form of a server to which each player apparatus is connected,

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each player apparatus is operable to send instructions to the server to change the 3D game environment stored therein in accordance with inputs from a user at the player apparatus; and

the server is operable to send data defining the status of the game environment to each player apparatus.

~~37.~~ (New) A method according to claim ~~1~~⁷, performed in a computer graphics system in which each player apparatus includes a game processing apparatus storing data defining the 3D game environment, and in which there is a game processing apparatus having the form of a server to which each player apparatus is connected, the method including the steps of:

sending instructions from each player apparatus to the server to change the 3D game environment stored therein in accordance with inputs from a user at the player apparatus; and

sending data from the server defining the status of the game environment to each player apparatus.

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~~38.~~ (New) A computer instruction carrier medium according to claim ⁴²~~35~~, wherein the medium comprises a signal.

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~~39.~~ (New) A method according to claim ⁷~~4~~, wherein the broadcast data defining the at least one view of the 3D game environment is addressed to particular observers.

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~~40.~~ (New) A method according to claim ²⁴~~18~~, wherein the broadcast data is addressed to a particular game observer apparatus.

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~~41.~~ (New) A method according to claim ³⁰~~24~~, wherein the broadcast signal carrying images of the game is addressed to a particular game observer apparatus.

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~~42.~~ (New) A method according to claim ³³~~26~~, wherein the broadcast image data is addressed to a particular observer apparatus.

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~~43.~~ (New) A method according to claim ³⁸~~33~~, wherein the broadcast image data is addressed to a particular observer apparatus.